AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parenthesis, underlined and/or double-bracketed text indicating insertions, and strikethrough text indicating deletions.

LISTING OF CLAIMS

1. (Previously Presented) A method of processing a message comprised of a plurality of layers, the method comprising the steps of:

linking a plurality of layer contexts based on addresses; and

encoding each layer context of the plurality of layer contexts after the step of linking is complete.

2. (Currently Amended) The method according to claim 1, wherein the step of linking comprises the steps of:

determining an address of a first layer context;

passing the address of the first layer context to a second layer, which is adjacent to the first ~~layers~~ layer; and

setting a second layer context address equal to the address of the first layer, whereby the contexts of the first and second layers are linked.

3. (Currently Amended) The method according to claim 2, further comprising the steps of:

passing the address of the linked contexts of the first and second layers to an adjacent subsequent layer;

setting a context of the adjacent subsequent layer context equal to the address of the linked context of the first and second layers, whereby the linked context and the context to the adjacent subsequent layer are thereby linked; and

repeating the steps of linking layer contexts until each layer context in the plurality of layer ~~contests~~ contexts is linked.

4. (Original) The method according to claim 3, wherein each layer context comprises variables and methods.

5. (Original) The method according to claim 4, wherein the variables comprise at least header and trailer field values, buffer positions and addresses to other contexts.

6. (Original) The method according to claim 4, wherein the methods comprise at least methods for encoding and decoding, one method decoding being a method for furnishing a context of a message.

7. (Original) The method according to claim 6, wherein the method for encoding comprises a method for computing message body dependent fields to include message length and CRC fields.

8. (Original) The method according to claim 1, wherein the step of encoding comprises the steps of :

incrementing a current buffer position by a header length of a first layer in the linked plurality of layers;

setting the current buffer position equal to the buffer position obtained by incrementing the current buffer position by the header length of the first layer; and

repeating the incrementing and setting steps for each of the remaining linked layers.

9. (Previously Amended) The method according to claim 8, further comprising the steps of:

calculating an aggregate value for layer contexts having variable length headers; and

setting the aggregate value equal to the header length in said incrementing step.

10. (Previously Amended) The method according to claim 8, further comprising the step of:

terminating buffer incrementing upon detection of an end-of-layer context indicator.

11. (Previously Amended) The method according to claim 8, further comprising the steps of:

moving header field data of each layer context in the buffer into a message stream; and

moving trailer field data of each layer context into the message stream,

wherein the movement of the header field data and trailer field data results in a formatted message stream having disposed therein encoded data obtained from the linked plurality of layer contexts.

12. (Previously Amended) The method according to claim 11, wherein the trailer field data associated with each layer context comprises CRC/FCS data.

13. (Previously Amended) The method according to claim 1, wherein the step of linking entails linking layer contexts comprising unformatted layer values.

14. (Previously Amended) The method according to claim 1, wherein the encoding step encodes each layer context of the linked plurality of layer contexts into a single buffer.

15. (Currently Amended) A method for processing a formatted layered message for transmission over a communication network, the formatted layered message having encoded data, the processing of the formatted layered message comprising the steps of:

combining unformatted elements ~~to link~~ by linking a plurality of layer contexts based on addresses; and

using a method, based on the combining step, on the unformatted elements to form the formatted layered message.